

Title (en)  
SCAPE MICROSCOPY WITH PHASE MODULATING ELEMENT AND IMAGE RECONSTRUCTION

Title (de)  
SCAPE-MIKROSKOPIE MIT PHASENMODULATIONSELEMENT UND BILDREKONSTRUKTION

Title (fr)  
MICROSCOPIE SCAPE AVEC ÉLÉMENT DE MODULATION DE PHASE ET RECONSTRUCTION D'IMAGE

Publication  
**EP 3465319 A4 20200219 (EN)**

Application  
**EP 17807328 A 20170530**

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• US 2017034984 W 20170530

Abstract (en)  
[origin: WO2017210182A1] A scanning element routes a sheet or beam of excitation light through a first set of optical components and into a sample at an oblique angle. The position of the excitation light within the sample varies depending on the orientation of the scanning element. Fluorophores within the sample emit fluorescent detection light. The first set of optical components route the detection light back to the scanning element, and the scanning element routes the detection light through a second set of optical components and into a camera. The second set of optical components includes a phase modulating element that induces a controlled aberration so as to homogenize point spread functions of points at, above, and below a focal plane when measured at the camera. In some embodiments, the images captured by the camera are processed to correct for aberration by performing deconvolution of a point spread function.

IPC 8 full level  
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**G01N 21/6458** (2013.01 - US); **G02B 21/002** (2013.01 - EP); **G02B 21/0032** (2013.01 - US); **G02B 21/0048** (2013.01 - US); **G02B 21/0064** (2013.01 - US); **G02B 21/0072** (2013.01 - US); **G02B 21/0076** (2013.01 - US); **G02B 21/0084** (2013.01 - US); **G02B 21/10** (2013.01 - EP); **G02B 21/361** (2013.01 - US); **G02B 21/367** (2013.01 - US); **G02B 26/105** (2013.01 - EP); **G02B 27/0075** (2013.01 - EP); **G02B 21/16** (2013.01 - EP); **G02B 26/06** (2013.01 - EP); **G02B 2207/114** (2013.01 - EP)

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